

ORIGINAL

EXCEPTION



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RE.  
AZ CORP COMMISSION  
DOCKET CONTROL

2017 AUG -4 P 3:42

Arizona Corporation Commission

DOCKETED

AUG 4 2017

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

TOM FORESE  
CHAIRMAN

BOB BURNS  
COMMISSIONER

DOUG LITTLE  
COMMISSIONER

ANDY TOBIN  
COMMISSIONER

BOYD DUNN  
COMMISSIONER

**IN THE MATTER OF THE  
APPLICATION OF ARIZONA PUBLIC  
SERVICE COMPANY FOR A  
HEARING TO DETERMINE THE FAIR  
VALUE OF THE UTILITY PROPERTY  
OF THE COMPANY FOR  
RATEMAKING PURPOSES, TO FIX A  
JUST AND REASONABLE RATE OF  
RETURN THEREON, TO APPROVE  
RATE SCHEDULES DESIGNED TO  
DEVELOP SUCH RETURN.**

**DOCKET NO. E-01345A-16-0036**

**DOCKET NO. E-01345A-16-0123**

**IN THE MATTER OF FUEL AND  
PURCHASED POWER  
PROCUREMENT AUDITS FOR  
ARIZONA PUBLIC SERVICE  
COMPANY.**

**ENERGY FREEDOM COALITION  
OF AMERICA'S EXCEPTIONS TO  
RECOMMENDED OPINION AND  
ORDER**

The Energy Freedom Coalition of America ("EFCA") hereby submits its Exceptions to the July 26, 2017, Recommended Opinion and Order (the "ROO") issued in this docket.

## I. Introduction

The Arizona Corporation Commission (the “Commission”) has been leading the State by encouraging the adoption of peak reducing energy storage. Beginning with numerous workshops and recently followed by the implementation of innovative policies and programs, the Commission has been pushing the distributed energy resource industry, utility ratepayers, and utilities toward the implementation of peak reducing energy storage that will reduce large future utility infrastructure needs thereby reducing electric rates for all Arizonans. Unfortunately, the ROO proposes a significant step backward in what has otherwise been a consistent theme of the Commission supporting and encouraging energy storage adoption in a smart, conservative, and effective manner.

The ROO recommends leaving in place the demand ratchet, the declining block demand charge, and the off-peak demand charge rate design for APS’ large commercial class of customers who want to adopt storage despite the fact that the Commission recently has found that demand ratchets “may be incompatible with battery storage technology,”<sup>1</sup> has declared demand ratchets to be “a substitute for rates that actually reflect cost causation,”<sup>2</sup> and found that demand ratchets “send incorrect pricing signals by redirecting cost recovery away from the periods in which the cost is incurred.”<sup>3</sup> Despite this recent, clear, and directly on point Commission precedent, the ROO proposes that the Commission not offer an optional rate to remove barriers to storage adoption as it did in Phase I of the recently concluded Tucson Electric Power (“TEP”) Rate Case and instead suggests the Commission leave this faulty rate design in place while offering an unproven and unstudied incentive program hoping this will be enough to encourage customers to adopt storage. APS itself admits it has no idea how much peak demand the ROO’s preferred proposal might save and that it has not compared the expected peak reduction of this proposal with EFCA’s suggestion.<sup>4</sup>

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<sup>1</sup> Commission Decision No. 75975 at 188:15-18.

<sup>2</sup> Commission Decision 75697 at 86:9-10 (emphasis added).

<sup>3</sup> Id. at 83:9-10.

<sup>4</sup> Snook Tr., Vol. VII at 1187:12-16; Snook Tr., Vol. VII at 1187:23-25.

1 Just five months ago the Commission took the important step of modernizing rate  
2 design by ordering Tucson Electric Power to remove barriers to the adoption of energy  
3 storage for large commercial customers in its service territory, yet the ROO proposes  
4 denying large commercial customers in the APS service territory that same opportunity to  
5 use storage to reduce their peak demand. As a result, if the ROO is adopted as written, APS  
6 ratepayers will only negligibly, if at all, benefit from energy storage that lowers peak  
7 demand and saves all ratepayers thus being denied the benefit of energy storage adoption  
8 that has been granted to TEP ratepayers. With APS expecting billions of dollars of  
9 investments to support a 50% load growth projected over just the next fifteen years,<sup>5</sup> now  
10 is precisely the time to give APS ratepayers the same chance their TEP equals have to  
11 mitigate that peak demand growth and benefit all through the adoption of peak reducing  
12 energy storage.

13 As set forth below, EFCA believes that the recently filed TEP tariff should act as  
14 the model for the Commission to implement in this case. The instead of approving APS'  
15 hastily thrown together,<sup>6</sup> unstudied, and untested, incentive program, an optional storage-  
16 friendly rate should be ordered in this case that removes the barriers to energy storage that  
17 are inherent in APS' current E-32L and E-32L TOU rate designs while including the  
18 restrictions and safeguards encompassed in the TEP tariff. As a result, this will be a  
19 measured program with continued Commission reviews eliminating the risk unintended  
20 negative consequences.

## 21 **II. Argument**

### 22 a. The ROO is at Odds with Significant Recent Commission Precedent

23 Phase I of the TEP Rate Case earlier this year asked the exact same question as the  
24 issue presented in this matter; should an optional rate design without a demand ratchet be  
25 made available to large commercial customers to remove the barriers to energy storage that  
26 are inherent in that rate design? In the TEP Rate Case the Commission unanimously  
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28 <sup>5</sup> Snook Tr., Vol. VII at 1193:16-19.

<sup>6</sup> The APS incentive proposal was introduced for the first time on the stand by APS' final witness in the hearing.

1 answered that question in the affirmative. The Commission ordered TEP to adopt an  
2 optional rate for its large commercial customers that removes the demand ratchet rate  
3 design. On July 7, 2017, TEP filed its Large General Service Time-of-Use Storage Program  
4 Tariff (the “TEP Storage Tariff”)<sup>7</sup> implementing the Commission’s directive and setting  
5 out the parameters of its new optional three-part (non-ratcheted) rate for large commercial  
6 customers looking to adopt peak reducing energy storage.<sup>8</sup> This rate design does not have  
7 a demand ratchet, a declining block demand charge, or an off-peak demand charge; all rate  
8 design elements that were demonstrated to be barriers to the adoption of energy storage.

9 The TEP Storage Tariff was filed after the conclusion of the hearing in this matter  
10 but the Decision that ordered its creation was widely discussed during the hearing. The fact  
11 that the TEP Storage Tariff was filed after this hearing’s conclusion does not mean the  
12 Commission cannot conclude that the restrictions set forth in that tariff should be used as  
13 part of the optional storage rate that the Commission ultimately orders in the matter.

14 In addition to the directly on point decision in the TEP Rate Case, the Commission  
15 roundly criticized the demand ratchet mechanism in Phase I of the UNSE Rate Case and  
16 other parts of the decision in Phase I of the TEP Rate Case. This recent Commission  
17 precedent, discussed in more detail below, is directly relevant to the issues in this case and  
18 should be a guide for the Commission in deciding this issue.

19 *i. Tobin Amendment and Resulting TEP Storage Tariff Should be a*  
20 *Blueprint for the Commission in this Case*

21 It was a unanimously adopted Amendment from Commissioner Tobin in the Phase  
22 I of the TEP Rate Case that ordered TEP to implement the TEP Storage Tariff. The  
23 resulting TEP Storage Tariff represents a measured middle ground that should serve as a  
24 model for the Commission and provides parameters that can be added to the storage-  
25 friendly rates adopted in this case to guard against any unintended consequences.

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28 <sup>7</sup> See Notice of Filing Revised Tariff, July 7, 2017, Tucson Electric Power, Docket No. E-01933A-15-0322. (A copy of the TEP Storage Tariff is attached as Exhibit A)

1 1. The TEP Storage Tariff Includes Measures to Protect Against  
2 Unintended Consequences

3 The TEP Storage Tariff is a balanced and cautious approach to removing barriers to  
4 energy storage adoption while carefully guarding against any unintended consequences.  
5 The ROO is critical of EFCA's proposal to eliminate demand ratchets and other barriers to  
6 storage adoption arguing that the approach "fails to take into account unintended  
7 consequences...."<sup>9</sup> While EFCA disputes this conclusion, it submits that as designed, the  
8 TEP Storage Tariff puts in place many measures to eliminate the risk of unintended  
9 consequences while providing a workable rate design that eliminates the barriers to energy  
10 storage found in the current APS rates.

11 The ROO identifies that it is concerned about potential unintended consequences  
12 specifically to ratepayers who have not yet adopted energy storage.<sup>10</sup> However, the ROO  
13 ignores that APS itself testified that technology that reduces peak demand actually reduces  
14 costs for all ratepayers.<sup>11</sup>

15 The TEP Storage Tariff includes the following protections to guard against  
16 unintended consequences:

- 17 • Conservative initial total program size limitation
- 18 • Stakeholder process before expanding or eliminating the program
- 19 • Required Commission review before discontinuing or expanding the program
- 20 • Required minimum peak demand reduction capability for each participating  
21 customer
- 22 • Requirement that participating systems are capable of providing VAR support
- 23 • The potential to modify TOU periods if needed in future without a rate case
- 24 • Annual reporting requirement
- 25 • Off-Peak demand charge assessed only when off-peak demand exceeds on-peak  
26 demand by a significant amount.

27 <sup>9</sup> ROO at 77:7.

28 <sup>10</sup> See ROO at 77:8-10.

<sup>11</sup> See e.g. Miessner Direct Exhibit APS-4, 21.

1                                2. The Objectives and Safeguards in the TEP Storage Tariff are  
2                                Similar to the R-Tech Rate Recommended for Approval in the  
3                                ROO.

4                The Settlement Agreement in this case calls for the creation of the R-Tech  
5 residential rate tariff that is designed to facilitate the implementation of distributed energy  
6 resources including energy storage technology.<sup>12</sup> Importantly, the ROO recommends the  
7 adoption of the R-Tech tariff.

8                The TEP Storage Tariff shares many characteristics and safeguards with the R-Tech  
9 tariff and makes it a good model for the Commission to follow in ordering APS to provide  
10 a non-ratcheted alternative to the E-32L and E-32L TOU rates at issue in this case. With  
11 the R-Tech and TEP Storage Tariffs as models, EFCA suggests it makes sense for the  
12 Commission to follow those models in implementing an optional storage-friendly rate  
13 subject to these well-developed safeguards.

14                First, the R-Tech tariff has a conservative initial program size which alleviates any  
15 concerns about unintended consequences of a program that grows too fast. Similarly, the  
16 TEP Storage Tariff includes a limited initial program size instead of an unlimited size  
17 program. The rate that APS is ordered to implement should similarly be made subject to  
18 just such an initial program size.

19                Next, the R-Tech rate encourages storage adoption by getting rate design right, not  
20 offering upfront incentives to overcome a rate design that otherwise includes barriers to the  
21 adoption of storage. Likewise, the TEP Storage Tariff takes a similar approach by  
22 attempting to get rate design right instead of trying to inefficiently incentivize a desired  
23 technology through an upfront incentive. In this case, the Commission should order the  
24 adoption of a tariff that sends the appropriate price signal through well designed rates rather  
25 than trying to incentivize over a faulty design as the ROO suggests.

26                The R-Tech rate requires Commission review before the initial program size can be  
27 expanded or the program terminated. The TEP Storage Tariff also requires Commission

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<sup>12</sup> See Settlement Agreement at Section 17.7.

1 review before the program can be expanded or terminated. In this case, the Commission  
2 should also require Commission review prior to the expansion or termination of the tariff  
3 it orders.

4 Both the R-Tech and TEP Storage Tariff include minimum size requirements for  
5 qualifying storage systems. These requirements ensure that trivial amounts of storage  
6 cannot be installed just to qualify a customer for these rates. Instead, they require  
7 meaningful amounts of storage be installed to lower system peak and save all ratepayers  
8 money. The Commission should order a tariff be adopted that includes a minimum size  
9 requirement like that found in the TEP Storage Tariff.

10 EFCA submits that if the Commission deems both the R-Tech rate and the TEP  
11 Storage Tariff as appropriate and in the public interest, it makes sense to incorporate these  
12 common elements and safeguards into the tariff it orders in this case.

13 3. The TEP Storage Tariff does not Include a Declining Block  
14 Demand Charge and Utilizes a Reasonable Approach to an  
15 Off-Peak Demand Charge

16 Importantly, in addition to eliminating the demand ratchet, the TEP Storage Tariff  
17 does not include two of the barriers to storage adoption that APS' current E-32L and E-  
18 32L TOU rates include. Unlike the current APS rates, the TEP Storage Tariff does not  
19 include a declining block demand charge and only includes an off-peak demand charge if  
20 the customers off-peak demand is in excess of 150% of the customer's on-peak demand.

21 The TEP Storage Tariff features an appropriate rate design that includes an on-peak  
22 demand charge, and a limited off-peak "excess demand" charge that only applies in  
23 situations where a customer's maximum demand exceeds 150% of that customers'  
24 measured on-peak demand.<sup>13</sup> In addition, the TEP Storage Tariff's demand charges vary  
25 by season, but do not include the declining block design found in the current APS E-32L  
26 rates. In the TEP case, the Commission required TEP to implement an optional, non-  
27 ratcheted rate to facilitate storage adoption for its large general service customers,<sup>14</sup> and

28 <sup>13</sup> See Notice of Filing Revised Tariff, July 7, 2017, Tucson Electric Power, Docket No. E-01933A-15-0322.

<sup>14</sup> Commission Decision No. 75697 and); Commission Decision No. 75975

1 the TEP Storage Tariff is the result. It only makes sense that a storage rate for APS' large  
2 commercial customers should mirror the key features of the TEP rate.

3 EFCA demonstrated at the hearing that off-peak and declining block demand  
4 charges found in the current APS E-32L rates are serious impediments to peak demand  
5 reduction and energy storage adoption. APS' current off-peak demand charge is punitive  
6 because it imposes a charge on customers for engaging in the exact behavior that this rate  
7 should incent – shifting usage off-peak. Peak demand drives costs to ratepayers,<sup>15</sup> which is  
8 why the Commission has sought to incentivize shifting usage off-peak. Further, because  
9 peak demand drives costs, there is no cost-based justification for this off-peak demand  
10 charge. TEP's 150% off-peak excess demand charge is a far better and more reasonable  
11 tool to facilitate storage adoption while safeguarding the utility from extreme levels of off-  
12 peak demand increase.

13 The declining block demand charge is equally problematic and unjustifiable. The  
14 declining block design itself is contrary to peak reduction objectives because by lowering  
15 the incremental price of using more demand, it incents increasing demand. Customers in  
16 the current E-32L class are rewarded for increasing demand by receiving a discount for  
17 every kW exceeding 100 kW.<sup>16</sup> In this case, the declining block is particularly troublesome  
18 because it is so small that it is virtually impossible to avoid moving to the second block.  
19 As EFCA's witness Mark Garrett described, "the first block is so small that large  
20 commercial customers could hardly be expected to avoid this minimum usage amount.  
21 Because of this fact, the declining block demand charge sends no price signal and acts as  
22 an unavoidable fixed charge on the customer's bill."<sup>17</sup> If the Commission's objective is to  
23 send a price signal to reduce demand, customers should not be subject to a charge that is  
24 essentially fixed and cannot be avoided. As a result, an optional rate encouraging energy  
25 storage should be adopted without these two rate mechanisms.

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28 <sup>15</sup>Garrett Direct Test., EFCA Ex. 4 at 14:26-15:3.

<sup>16</sup> Garrett Direct Test., EFCA Ex. 4 at 13:10-13.

<sup>17</sup>Garrett Tr., Vol. VII at 1204:5-10.

1                                   4. The Optional Storage-Friendly Rate Adopted in this Case  
2                                   should Include the Safeguards and Elements of the TEP  
3                                   Storage Tariff and the APS R-Tech Rate

4           The optional storage-friendly rate that is adopted in this case should be subject to  
5 the collective safeguards and restrictions contained within the TEP Storage Tariff and the  
6 R-Tech tariff. Together these safeguards and requirements eliminate the risk of unintended  
7 consequences flowing from the adoption of this storage-friendly rate. Below is and  
8 examination of each aspect of the respective tariffs that should be included in the optional  
9 rate and proposed language to be incorporated into an amendment to implement each.  
10 While it is dealt with in pieces here, the specific language of a cumulative amendment is  
11 proposed in Section II.e. below.

12           The TEP Storage Tariff and the R-Tech rate collectively include the following  
13 protections and safeguards to guard against unintended consequences and these safeguards  
14 should be adopted in this matter as proposed below:

15           • **Conservative initial total program size limitation**

16           Both the R-Tech and TEP Storage Tariff's include conservative initial program size  
17 limitations. The TEP Storage Tariff is initially limited to a peak demand total of 25,000  
18 kW. In recognition of the fact that by any measure APS as a utility is at least twice as large  
19 as TEP and that the relative large commercial class in APS has over two times as many  
20 customers as TEP's LGS class,<sup>18</sup> EFCA believes the appropriate initial program size for  
21 APS is 50,000 kW. As a result, the appropriate language to implement this restriction is as  
22 follows:

23  
24           *"This program will be capped at a peak demand total of 50,000 kW for installed systems*  
25 *and active interconnection applications on a first come first serve basis with allotment*  
26 *reserved at the time of submittal of a complete interconnection application."*<sup>19</sup>

27           <sup>18</sup> See e.g. APS and TEP Annual Reports for Year Ending December 31, 2016. APS has 126,662 commercial  
28 customers and TEP has 37,822; APS sold 12,411,366,000 kWh to commercial customers in 2016 and TEP sold  
2,029,610,986 kWh.

<sup>19</sup> Language taken from the TEP Tariff with size adjusted for differences between TEP and APS.

1       • **Stakeholder process before expanding or eliminating the program**

2       Both the R-Tech and TEP Storage Tariffs contain similar language calling for  
3 stakeholder involvement in the consideration of potential expansion or ending of the tariffs.  
4 EFCA believes this is a feature that should be included in any optional rate ordered in this  
5 proceeding. The appropriate language to implement this provision is as follows:  
6

7       *“Once 70% of the initial program capacity has been reserved, and if such threshold has*  
8 *been reached prior to the Company’s next general rate case filing, the Company shall*  
9 *provide notice and promptly convene a meeting of the interested parties to this Docket to*  
10 *discuss the future of this program. If each of the parties to that discussion agree on a new*  
11 *program size for the Optional Tariff that shall apply until the Commission determines the*  
12 *disposition of the Optional Tariff during the Company’s next general rate case, the*  
13 *Company shall file a notice in this Docket to that effect and the program shall continue to*  
14 *be offered up to the new agreed upon customer participation level.”<sup>20</sup>*  
15

16       • **Required Commission review before discontinuing or expanding the program**

17       Both the R-Tech and TEP Storage Tariffs contain similar language calling for  
18 Commission review in the event that the stakeholder process does not result in agreement  
19 among stakeholders. EFCA believes this is a feature that should be included in any optional  
20 rate ordered in this proceeding. The appropriate language to implement this provision is as  
21 follows:  
22

23       *“If all parties cannot agree to a new program size, then APS shall file a report on the*  
24 *Optional Tariff and request that the Commission determine whether to continue, expand,*  
25 *or terminate the program in the Docket within 90 days of the date that 70% of the initial*  
26 *program capacity has been reserved. The Commission will then promptly review the*  
27 *program and determine if it should continue, terminate, or be adjusted.”<sup>21</sup>*

28       <sup>20</sup> Language taken directly from R-Tech Tariff.

<sup>21</sup> Language taken directly with from R-Tech Tariff.

1       • **Required minimum peak demand reduction capability for each participating**  
2       **customer**

3       Both the R-Tech and TEP Storage Tariffs contain similar language calling for  
4       minimum sized storage systems to qualify to take service under the tariff. This makes sure  
5       that insignificant investments in energy storage cannot avail customers of this rate and  
6       helps make sure meaningful demand reduction and customer savings are achieved as a  
7       result. EFCA believes this is a feature that should be included in any optional rate ordered  
8       in this proceeding. The appropriate language to implement this provision is as follows:

9  
10      *"To qualify for this tariff, a customer must install an energy storage system (chemical,*  
11      *mechanical, or thermal) that will allow the customer to offset a minimum of 20% of their*  
12      *measured peak demand. The determination of 20% of the measured peak demand will be*  
13      *based on the customers previous year's measured peak demand prior to the installation of*  
14      *storage facilities. If this is a new facility, then the 20% reduction amount will be determined*  
15      *by the Company based on the total estimated peak demand designed for the facility."*<sup>22</sup>

16  
17       • **Requirement that participating systems are capable of providing VAR support**

18       The TEP Storage Tariff includes a requirement that the installed storage be  
19       configured to provide VAR support which helps maximize the value of the installed storage  
20       to all ratepayers. EFCA believes this is a feature that should be included in any optional  
21       rate ordered in this proceeding. The appropriate language to implement this provision is as  
22       follows:

23  
24      *"Where a power producing facility is installed inverters must be capable of and configured*  
25      *to provide VAR support so that a near unity power factor (at least 95%) is maintained*  
26      *during operation."*<sup>23</sup>

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28      <sup>22</sup> Language taken directly from TEP Tariff.

<sup>23</sup> Language taken directly from TEP Tariff.

1       • **The potential to modify TOU periods if needed in future without a rate case**

2           In that event that ideal TOU periods change over time, the TEP Storage Tariff  
3 retains the right of the utility to modify the TOU rate in an effort to maximize the potential  
4 value of the rate to all ratepayers. In an effort to be fair, customers who have adopted  
5 storage before an alteration in the TOU periods are given the option to stay on their current  
6 or adjust to the next TOU period. EFCA believes this is a feature that should be included  
7 in any optional rate ordered in this proceeding. The appropriate language to implement this  
8 provision is as follows:

9  
10       *“Once per year on March 1st the time of use periods may change to reflect changing On-*  
11 *Peak and Off-Peak periods for the coming seasons which will take effect on May 1<sup>st</sup>. The*  
12 *On-Peak period will be determined as the 6 greatest average system demand hours during*  
13 *the previous three years by season. The Off-Peak period will be determined as the 12 lowest*  
14 *average system demand hours during the previous three years by season. When the hours*  
15 *are changed, a customer may choose to switch or keep their current time-of-use periods.”*<sup>24</sup>

16  
17       • **Annual reporting requirement**

18           The TEP Storage Tariff includes an annual reporting requirement whereby the  
19 utility reports on the uptake and impact of the tariff. EFCA believes this is a feature that  
20 should be included in any optional rate ordered in this proceeding. The appropriate  
21 language to implement this provision is as follows:

22  
23       *“Until such time that a final order is issued in APS’s next rate case, on July 1 of each year*  
24 *APS will submit an informational filing in the Docket. The report will include: (i) the*  
25 *number of customers, both in the current year and cumulatively that are participating in*  
26 *the program (including the proportion of these customers relative to the entire large*  
27 *commercial class), (ii) the total peak demand of such customers relative to the initial*

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<sup>24</sup> Language taken directly from TEP Storage Tariff.

1 program allotment of 50,000 kW, (iii) observed peak demand reductions, if any, of  
2 customers participating in this program, (iv) recommended changes, if any to the Time of-  
3 Use periods for this program, (v) if available information regarding the average time to  
4 process applications from customers wishing to participate in this program, and (vi) the  
5 current year and cumulative kWh exported to the grid by these customers.”<sup>25</sup>

6  
7 • **Rate Design**

8 The TEP Storage Tariff does not include a demand ratchet, off-peak demand charge,  
9 or a declining block demand charge. However, that tariff does include an off-peak excess  
10 demand charge to deter too much off-peak usage that could lead to negative consequences.  
11 In addition, the TEP Storage Tariff bills monthly demand based on the highest 15 minute  
12 on-peak interval. EFCA believes that the rate ordered in this case should mirror these rate  
13 design attributes and the following language should be adopted to implement the  
14 appropriate rate design restrictions:

15  
16 *“This tariff shall not include a demand ratchet, Off-Peak demand charge, or declining*  
17 *block demand charge. Billing demand shall be equal to the greatest measured 15 minute*  
18 *interval demand read of the meter during the On-Peak hours during the billing period and*  
19 *may include an option that this demand not fall below a pre-specified contract demand.*  
20 *The tariff may include a summer and winter Off-Peak excess demand charge.”<sup>26</sup>*

21  
22 EFCA supports each of the above restrictions that have already been implemented  
23 under the Commission’s watch and at the Commission’s specific direction. Section II.e.  
24 below includes a complete proposed amendment to implement a tariff that is in keeping  
25 with this important recent Commission precedent.

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28 <sup>25</sup> Language taken directly from TEP Storage Tariff.

<sup>26</sup> Rate design elements taken directly from TEP Tariff.

1                                5. The Commission can order APS to Adopt Optional Rates to  
2                                Encourage Storage Adoption and Include the Safeguards of  
3                                the TEP Storage Tariff

4                EFCA does not know what, if any, arguments might be made in opposition to its  
5 reasonable suggestion that the Commission order APS to implement the storage-friendly  
6 rates that are subject to restrictions and safeguards that mirror the TEP Storage Tariff,  
7 however it is clear the Commission has the authority to direct APS to do so. Commissioner  
8 Andy Tobin's Proposed Amendment No. 7 in Phase I of the TEP Rate Case that  
9 implemented the TEP Storage Tariff in the first place is an example of the Commission  
10 exercising just such authority.<sup>27</sup> In that instance, the Commission weighed the arguments  
11 of the parties set out in their Briefs and in their Exceptions and came up with a solution  
12 that was not exactly what either side was pushing for, but that lead to a balanced solution.  
13 Clearly, the Commission has the same option in this case that it had in Phase I of the TEP  
14 Rate Case. EFCA has presented a robust record in this docket to demonstrate the need for  
15 an optional rate to remove the barriers to storage adoption and the Commission has the  
16 freedom to order such rate subject to the safeguards it deems appropriate.

17                Furthermore, it is important to note that the parties to the Settlement Agreement  
18 specifically separated this issue out to be litigated in this case.<sup>28</sup> The Commission is free to  
19 decide on this issue without risk of upsetting the Settlement Agreement itself.

20                                *ii. TEP and UNSE Phase I Decisions Declare that Ratchets are Not Cost*  
21                                *Based, are Inequitable, and Send Poor Price Signals.*

22                Not only did Phase I of the TEP Rate Case deal with exactly the same issue at play  
23 in this matter, but the Decisions in Phase I of both the UNSE and TEP Rate Cases were  
24 each highly critical of demand ratchets generally. Despite this very recent view into the  
25 Commission's thinking on demand ratchets, the ROO incorrectly concludes that the TEP  
26 and UNSE Decisions are not even "helpful"<sup>29</sup> in analyzing the issues in this case. For the

27 <sup>27</sup> See Andy Tobin's Proposed Amendment No. 7, February 7, 2017; Docket No. E-01933A-15-0322.  
<http://docket.images.azcc.gov/0000177163.pdf>

28 <sup>28</sup> See Settlement Agreement at Section 20.5.

<sup>29</sup> See ROO 77:3-5.

1 following reasons EFCA respectfully disagrees with the ROO and believes the TEP and  
2 UNSE Phase I Decisions are not just helpful, but directly on point and informative.

3       The Decision in Phase I of the UNSE Rate Case provides timely and valuable insight  
4 into the Commission's current thinking about demand ratchets. In that case the  
5 Commission determined that "demand ratchets may be characterized as a *substitute for*  
6 *rates that actually reflect cost causation.*"<sup>30</sup> The Commission further explained that,  
7 "Ratchets can send incorrect pricing signals by redirecting cost recovery away from the  
8 periods in which the cost is incurred."<sup>31</sup> The Commission did not limit its conclusions in  
9 any way or state that its conclusions only applied to UNSE customers or to the specific  
10 demand ratchet in use in that case. Further, the Commission went so far as to order UNSE  
11 to come back in its next rate case and propose commercial rate designs *that do not include*  
12 *a ratchet.*<sup>32</sup> On this point the Commission stated, "[i]n UNSE's next rate case, we direct  
13 the Company to seriously consider designing rates that match cost causation, as measured  
14 by its CCOSS, with revenue recovery, and to evaluate methods of revenue recovery *that*  
15 *do not involve ratchets.*"<sup>33</sup> The Commission did not order UNSE to come back with a  
16 redesigned ratchet rate but rather urged the company to get rid of the ratchet altogether and  
17 to adopt rates that "could send proper cost signals all year, *unlike ratchets.*"<sup>34</sup>

18       In the TEP case, the Commission reiterated its concern about demand ratchets  
19 stating, "we noted in the UNSE rate case, we have concerns about ratchets and believe that  
20 seasonal, and or time-of-use demand charges, can provide a more equitable solution to  
21 reliable cost recovery."<sup>35</sup> Again, the Commission did not caveat this statement to suggest  
22 it only was displeased with TEP's demand ratchets.

23       EFCA strongly disagrees with the ROO's conclusion that the UNSE and TEP Phase  
24 I decisions should be completely ignored as not "helpful" in this instance. The Commission  
25 carefully considered ratchet rate designs in both of these cases and clearly and

26 <sup>30</sup> Commission Decision 75697 at 86:9-10.(emphasis added)

27 <sup>31</sup> Id. at 83:9-10.

28 <sup>32</sup> Id. at 86:19-21.

<sup>33</sup> Id. (emphasis added)

<sup>34</sup> Id. at 86:27.(emphasis added)

<sup>35</sup> Commission Decision 75975 at 94:9-11.

1 unequivocally concluded those rate designs are not cost based, are inequitable compared  
2 to other rate designs, and send incorrect price signals.

3           b. The ROO Recommends Adoption of APS' Proposal Despite its Many  
4           Flaws and a Lack of Support in the Record

5           Almost no evidence was presented at the hearing to support adoption of APS'  
6 alternative rate proposal. In fact, APS admitted that it did not even determine if any peak  
7 reduction might result from its proposal.<sup>36</sup> Indeed, the Company readily admitted that it  
8 has not even performed any comparative analysis between its proposal and EFCA's  
9 Optional Storage Rates.<sup>37</sup>

10          After alleging throughout the hearing that its ratchet rates already adequately  
11 supported the installation of storage, APS altered its position at the very last moment and  
12 offered an extremely limited subsidy program apparently designed to overcome the barriers  
13 of its E-32L rate design. APS made this alternative proposal for the first time through its  
14 final witness in the hearing.<sup>38</sup> APS' alternative proposal is inadequate to generate  
15 meaningful storage deployment and peak reduction. The proposal does not solve the  
16 problems inherent in the current E-32L rates, most notably, by retaining the ratchet  
17 mechanism itself. This means customers seeking to deploy storage under this alternative  
18 proposal would be subject to the same impediments only APS suggests that ratepayers pay  
19 them cash subsidies to overcome these impediments. To make matters worse, the small  
20 declining block demand charge, which sends no price signal and simply acts as an  
21 unavoidable fixed charge, is also retained, as is the counterproductive off-peak demand  
22 charge for the TOU customers.

23          EFCA submits that in addition to departing from important Commission precedent  
24 described above, the ROO's recommendation of an untested incentive scheme that was  
25 introduced only at the last possible moment at hearing is simply poor policy. Why would  
26 the Commission ask ratepayers to subsidize the installation of much needed energy storage

27  
28 <sup>36</sup> Snook Tr., Vol. VII at 1187:23-25.

<sup>37</sup> Snook Tr., Vol. VII at 1187:12-16.

<sup>38</sup> Snook Tr., Vol. V at 811:15-812:6.

1 while counterproductively leaving in place rate design mechanisms that are entirely  
2 incompatible with the goal of seeing storage deployed? The reason the incentives are  
3 needed is because the rate design is not based on cost-causation and sends poor price  
4 signals thereby putting up a barrier to the adoption of storage that the Commission has  
5 otherwise encouraged its ratepayers to adopt. EFCA submits that adoption of storage-  
6 friendly rates subject to the same requirements and safeguards set out in the TEP Storage  
7 Tariff as described herein is much a much more rational policy decision.

8 c. APS is Predicting Significant Load Growth Making Storage Adoption an  
9 Immediate Priority

10 If the ROO is adopted as written then commercial customers in Tucson will have  
11 the ability implement energy storage solutions that will be unavailable to customers of the  
12 State's largest utility provider. EFCA submits that it makes little sense to implement a  
13 forward thinking plan to reduce peak demand in TEP service territory while rejecting that  
14 same plan in APS service territory. In particular, the projected growth rate in APS service  
15 territory calls for immediate action to mitigate the significant cost impacts to ratepayers of  
16 such extreme demand growth.

17 APS is predicting a significant 50% load growth over the just the next fifteen  
18 years.<sup>39</sup> APS projects that this significant near-term load growth will cause its ratepayers  
19 to incur billions of dollars in liability for APS' investment in additional peak generation.<sup>40</sup>  
20 Adopting an appropriate storage-friendly rate will enable APS' large commercial  
21 customers to adopt peak reducing storage technologies that for any one large user, "could  
22 potentially move as much load as 200 residential customers [who adopt storage]."<sup>41</sup> In  
23 other words, when one large commercial customer adopts energy storage, it reduces peak  
24 much greater than when one residential customer does so. Storage deployment in large  
25 commercial classes will provide ratepayers the greatest yield in peak reduction on a per  
26 deployment basis, and therefore offers an even greater ability to defer or reduce the utility's

27 <sup>39</sup> Garrett Tr., Vol. VII at 1208:10-19.

28 <sup>40</sup> Snook Tr., Vol. VII at 1193:16-19.

<sup>41</sup> Garrett Tr., Vol. VII at 1218:9-11.

1 acquisition of new capacity.<sup>42</sup> The Commission mandated TEP Storage Tariff is  
2 specifically targeted to shave peak,<sup>43</sup> and APS customers should be entitled to the same  
3 benefits as TEP customers. As a result of APS' predicted 50% increase in near-term load,  
4 the time is absolutely now to remove ill-conceived rate designs and implement the storage-  
5 friendly rates subject to the protections and safeguards included in the TEP Storage Tariff.

6 d. The ROO Does Not Adequately Consider EFCA's Arguments Presented at  
7 Hearing

8 EFCA wishes to note that the ROO incorrectly suggests that matters firmly  
9 presented in the record were not actually in the record. Further, the ROO does not appear  
10 to have taken into consideration several of EFCA's arguments made at hearing and in its  
11 briefing.<sup>44</sup>

12 During the hearing EFCA offered testimony on three proposals designed to respond  
13 to criticisms raised and to mitigate unintended consequences that might flow from the  
14 adoption of EFCA's proposed Optional Storage Rates.<sup>45</sup> EFCA is confused that the ROO  
15 chose to quote AIC's demonstrably false claim from its brief wherein AIC alleged that  
16 EFCA introduced these proposals for the first time in its first post-hearing brief.<sup>46</sup> In  
17 choosing to quote this erroneous section of AIC's brief despite the overwhelming clarity  
18 of the record to the contrary (EFCA's Opening Brief was replete with citations to the record  
19 for each of the three mitigating factors that AIC complains of<sup>47</sup>), the ROO presents an  
20 incorrect picture of the record. In fact, if the ROO was going to include AIC's false claim,  
21 it should have followed that false claim with a clarification that AIC was incorrect in this  
22 assertion and that the ROO rejected AIC's assertions.

23  
24 <sup>42</sup> Garrett Tr., Vol. VII at 1217:12-19.

25 <sup>43</sup> See Decision No. 75975 at 188:22.

26 <sup>44</sup> EFCA believes the ROO may have omitted several of EFCA's arguments because the ROO only dedicated six of  
the thirty-six paragraphs written on the discussion of the parties' positions to the arguments raised by EFCA while  
dedicating thirty paragraphs to the positions set forth by APS and Arizona Investment Council ("AIC").

27 <sup>45</sup> Garrett Tr., Vol. VII at 1255:16-1256:17; Garrett Tr., Vol. VII at 1223:2-18; 1229:10-21; Garrett Tr., Vol. VII at  
1228:6-1229:7.

28 <sup>46</sup> See ROO at 76:9-12

<sup>47</sup> See e.g. Garrett Tr., Vol. VII at 1255:16-1256:17; Garrett Tr., Vol. VII at 1223:2-18; 1229:10-21; Garrett Tr., Vol.  
VII at 1228:6-1229:7.

1 Further, the ROO failed to restate or consider EFCA's arguments about APS'  
2 shifting and inconsistent position on three-part demand rates. EFCA demonstrated that  
3 APS offered testimony in its direct case, before it knew that EFCA would propose its  
4 Optional Storage Rates, that it was "*imperative* that APS adopts new rate designs that  
5 *incent rational adoption of technologies* by providing accurate price signals for incenting  
6 how and when customers use electricity"<sup>48</sup> before it changed direction and testified at the  
7 hearing that rate design *should not incent* technology adoption.<sup>49</sup> Similarly, an APS witness  
8 testified in his direct case (again, before APS knew of EFCA's position) that three part  
9 demand rates (without a ratchet) result in a situation where a customer reducing their bill  
10 would not shift costs to other customers, however when the same witness was pressed with  
11 the same question at the hearing from EFCA's counsel, the witnesses changed his story  
12 and claimed that customer bill saving under a three part rate *would* cause a cost shift.<sup>50</sup>  
13 APS' inconsistencies and contradictory positions that were exposed at hearing and set forth  
14 in EFCA's briefs were not mentioned in the ROO.

15 e. The ROO should be Amended

16 For the reasons set forth above, the ROO should be amended to follow recent  
17 Commission precedent and continue the reduction of peak demand through the adoption of  
18 energy storage resulting in lower costs for all APS ratepayers. EFCA urges that ordering  
19 the implementation of alternative storage-friendly rates that are subject to the restrictions  
20 and safeguards set forth in the TEP Storage Tariff and the R-Tech tariff is the ideal  
21 compromise to resolve this matter. In order to achieve this outcome, EFCA respectfully  
22 requests that the Commission amend the ROO as follows:  
23  
24  
25

26 <sup>48</sup> APS Exhibit 11 at LRS-05DR; APS Long-Range Rate Plan, at 9 of 16 (emphasis added).

27 <sup>49</sup> See Snook Tr. Vol. V 862:6-8.

28 <sup>50</sup> See Miessner Direct Exhibit APS-4, 21; Miessner, Tr., Vol III 423:20-424:1 (at 423:6-11 Miessner was asked, "Do the service charge and demand charges in the three-part rate that EFCA has proposed fully recover the grid investment costs to serve the customer if the customers in that subclass represent the average E-32 L customers?" Miessner responded, "Yes, I think that's probably correct.").

**DELETE** page 77, lines 2-26 and **REPLACE** with:

*“Recent Commission precedent is instructive as to how we should resolve this dispute. In Phase I of the recently concluded TEP and UNSE Rate Cases we have identified problems with the demand ratchet rate design generally including that the ratchet design can fail to match cost causation and sends poor price signals. Specifically, we were faced with this exact same issue in Phase I of the recently concluded TEP Rate Case where we ordered the creation of a ratchet-free optional rate designed to remove the barriers to energy storage for large commercial customers.*

*We believe that removing inherent rate design barriers to energy storage makes sense as a first step before considering whether or not it is appropriate to use cash incentives for a particular customer class. We also believe it would be inefficient to leave in place a rate design that may discourage storage adoption while offering an incentive that may only be needed because of the rate design barriers in the first place. A new optional storage-friendly rate should be created and the demand ratchet, off-peak demand charge, and declining block demand charge currently included in APS’ E-32L and E-32L TOU rates should be stricken from this new optional rate.*

*The R-Tech Tariff we approve of herein as part of the Settlement and TEP’s recently implemented Large General Service Time-of-Use Storage Program Tariff (the “TEP Tariff”) set forth a number of appropriate safeguards and restrictions that should be utilized in conjunction with our approval of an optional storage-friendly rate to avoid any negative unintended consequences and ensure a smooth and meaningful implementation of this optional tariff. As such, we order APS to file a new optional storage-friendly tariff and order that the tariff shall include the following restrictions and safeguards inspired by and borrowed from both the R-Tech and TEP Tariff:*

1  
2       • *Program Size*

3       *This program will be capped at a peak demand total of 50,000 kW for installed systems*  
4       *and active interconnection applications on a first come first serve basis with allotment*  
5       *reserved at the time of submittal of a complete interconnection application.*

6       • *Stakeholder Process*

7       *Once 70% of the initial program capacity has been reserved, and if such threshold has*  
8       *been reached prior to the Company's next general rate case filing, the Company shall*  
9       *provide notice and promptly convene a meeting of the interested parties to this Docket to*  
10       *discuss the future of this program. If each of the parties to that discussion agree on a new*  
11       *program size for the Optional Tariff that shall apply until the Commission determines the*  
12       *disposition of the Optional Tariff during the Company's next general rate case, the*  
13       *Company shall file a notice in this Docket to that effect and the program shall continue to*  
14       *be offered up to the new agreed upon customer participation level.*

15       • *Commission Review*

16       *If all parties cannot agree to a new program size, then APS shall file a report on the*  
17       *Optional Tariff and request that the Commission determine whether to continue, expand,*  
18       *or terminate the program in the Docket within 90 days of the date that 70% of the initial*  
19       *program capacity has been reserved. The Commission will then promptly review the*  
20       *program and determine if it should continue, terminate, or be adjusted.*

21       • *Minimum Peak Demand Reduction*

22       *To qualify for this tariff, a customer must install an energy storage system (chemical,*  
23       *mechanical, or thermal) that will allow the customer to offset a minimum of 20% of their*  
24       *measured peak demand. The determination of 20% of the measured peak demand will be*  
25       *based on the customers previous year's measured peak demand prior to the installation of*  
26       *storage facilities. If this is a new facility, then the 20% reduction amount will be determined*  
27       *by the Company based on the total estimated peak demand designed for the facility.*  
28

1  
2       • *VAR Support*

3       *Where a power producing facility is installed inverters must be capable of and configured*  
4       *to provide VAR support so that a near unity power factor (at least 95%) is maintained*  
5       *during operation.*

6       • *Flexible TOU Rates*

7       *Once per year on March 1st the time of use periods may change to reflect changing On-*  
8       *Peak and Off-Peak periods for the coming seasons which will take effect on May 1<sup>st</sup>. The*  
9       *On-Peak period will be determined as the 6 greatest average system demand hours during*  
10       *the previous three years by season. The Off-Peak period will be determined as the 12 lowest*  
11       *average system demand hours during the previous three years by season. When the hours*  
12       *are changed, a customer may choose to switch or keep their current time-of-use periods.*

13       • *Annual Reporting*

14       *Until such time that a final order is issued in APS's next rate case, on July 1 of each year*  
15       *APS will submit an informational filing in the Docket. The report will include: (i) the*  
16       *number of customers, both in the current year and cumulatively that are participating in*  
17       *the program (including the proportion of these customers relative to the entire large*  
18       *commercial class), (ii) the total peak demand of such customers relative to the initial*  
19       *program allotment of 50,000 kW, (iii) observed peak demand reductions, if any, of*  
20       *customers participating in this program, (iv) recommended changes, if any to the Time of-*  
21       *Use periods for this program, (v) if available information regarding the average time to*  
22       *process applications from customers wishing to participate in this program, and (vi) the*  
23       *current year and cumulative kWh exported to the grid by these customers.*

24       • *Rate Design*

25       *This tariff shall not include a demand ratchet, Off-Peak demand charge, or declining block*  
26       *demand charge. Billing demand shall be equal to the greatest measured 15 minute interval*  
27       *demand read of the meter during the On-Peak hours during the billing period and may*  
28

1 *include a contract demand option. The tariff may include a summer and winter Off-Peak*  
2 *excess demand charge.”*

3  
4 **DELETE** finding of fact No. 339 and **REPLACE** with:

5  
6 *“Optional rates to encourage the adoption of battery storage among APS’ E-32L and E-*  
7 *32L TOU customers should be approved and the tariff shall include the following*  
8 *restrictions and safeguards inspired by and borrowed from both the R-Tech and TEP*  
9 *Tariff:*

10 

- *Program Size*

11 *This program will be capped at a peak demand total of 50,0000 kW for installed systems*  
12 *and active interconnection applications on a first come first serve basis with allotment*  
13 *reserved at the time of submittal of a complete interconnection application.*

14 

- *Stakeholder Process*

15 *Once 70% of the initial program capacity has been reserved, and if such threshold has*  
16 *been reached prior to the Company’s next general rate case filing, the Company shall*  
17 *provide notice and promptly convene a meeting of the interested parties to this Docket to*  
18 *discuss the future of this program. If each of the parties to that discussion agree on a new*  
19 *program size for the Optional Tariff that shall apply until the Commission determines the*  
20 *disposition of the Optional Tariff during the Company’s next general rate case, the*  
21 *Company shall file a notice in this Docket to that effect and the program shall continue to*  
22 *be offered up to the new agreed upon customer participation level.*

23 

- *Commission Review*

24 *If all parties cannot agree to a new program size, then APS shall file a report on the*  
25 *Optional Tariff and request that the Commission determine whether to continue, expand,*  
26 *or terminate the program in the Docket within 90 days of the date that 70% of the initial*  
27 *program capacity has been reserved. The Commission will then promptly review the*  
28 *program and determine if it should continue, terminate, or be adjusted.*

1       • *Minimum Peak Demand Reduction*

2       *To qualify for this tariff, a customer must install an energy storage system (chemical,*  
3       *mechanical, or thermal) that will allow the customer to offset a minimum of 20% of their*  
4       *measured peak demand. The determination of 20% of the measured peak demand will be*  
5       *based on the customers previous year's measured peak demand prior to the installation of*  
6       *storage facilities. If this is a new facility, then the 20% reduction amount will be determined*  
7       *by the Company based on the total estimated peak demand designed for the facility.*

8       • *VAR Support*

9       *Where a power producing facility is installed inverters must be capable of and configured*  
10       *to provide VAR support so that a near unity power factor (at least 95%) is maintained*  
11       *during operation.*

12       • *Flexible TOU Rates*

13       *Once per year on March 1st the time of use periods may change to reflect changing On-*  
14       *Peak and Off-Peak periods for the coming seasons which will take effect on May 1<sup>st</sup>. The*  
15       *On-Peak period will be determined as the 6 greatest average system demand hours during*  
16       *the previous three years by season. The Off-Peak period will be determined as the 12 lowest*  
17       *average system demand hours during the previous three years by season. When the hours*  
18       *are changed, a customer may choose to switch or keep their current time-of-use periods.*

19       • *Annual Reporting*

20       *Until such time that a final order is issued in APS's next rate case, on July 1 of each year*  
21       *APS will submit an informational filing in the Docket. The report will include: (i) the*  
22       *number of customers, both in the current year and cumulatively that are participating in*  
23       *the program (including the proportion of these customers relative to the entire large*  
24       *commercial class), (ii) the total peak demand of such customers relative to the initial*  
25       *program allotment of 50,000 kW, (iii) observed peak demand reductions, if any, of*  
26       *customers participating in this program, (iv) recommended changes, if any to the Time of-*  
27       *Use periods for this program, (v) if available information regarding the average time to*  
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1 process applications from customers wishing to participate in this program, and (vi) the  
2 current year and cumulative kWh exported to the grid by these customers.

3  
4 • *Rate Design*

5 *This tariff shall not include a demand ratchet, Off-Peak demand charge, or declining block*  
6 *demand charge. Billing demand shall be equal to the greatest measured 15 minute interval*  
7 *demand read of the meter during the On-Peak hours during the billing period and may*  
8 *include a contract demand option. The tariff may include a summer and winter Off-Peak*  
9 *excess demand charge.”*

10  
11 **DELETE** page 104, lines 1-11 and **REPLACE** with:

12  
13 *“Optional rates to encourage the adoption of battery storage among APS’ E-32L and E-*  
14 *32L TOU customers should be approved and the tariff shall include the following*  
15 *restrictions and safeguards inspired by and borrowed from both the R-Tech and TEP*  
16 *Tariff:*

17 • *Program Size*

18 *This program will be capped at a peak demand total of 50,0000 kW for installed systems*  
19 *and active interconnection applications on a first come first serve basis with allotment*  
20 *reserved at the time of submittal of a complete interconnection application.*

21 • *Stakeholder Process*

22 *Once 70% of the initial program capacity has been reserved, and if such threshold has*  
23 *been reached prior to the Company’s next general rate case filing, the Company shall*  
24 *provide notice and promptly convene a meeting of the interested parties to this Docket to*  
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27 *disposition of the Optional Tariff during the Company’s next general rate case, the*  
28

1 Company shall file a notice in this Docket to that effect and the program shall continue to  
2 be offered up to the new agreed upon customer participation level.

3  
4 • *Commission Review*

5 If all parties cannot agree to a new program size, then APS shall file a report on the  
6 Optional Tariff and request that the Commission determine whether to continue, expand,  
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23 Peak and Off-Peak periods for the coming seasons which will take effect on May 1<sup>st</sup>. The  
24 On-Peak period will be determined as the 6 greatest average system demand hours during  
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27 are changed, a customer may choose to switch or keep their current time-of-use periods.

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1 **Original and 13 copies filed on**  
2 **this 4<sup>th</sup> day of August, 2017 with:**

3 Docket Control  
4 Arizona Corporation Commission  
5 1200 W. Washington Street  
6 Phoenix, Arizona 85007

7 *I hereby certify that I have this day served a copy of the foregoing document on all parties of*  
8 *record in this proceeding by regular or electronic mail to:*

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**EXHIBIT A**

ORIGINAL



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Tucson Electric Power  
88 East Broadway Blvd., Post Office Box 711  
Tucson, AZ 85702

Arizona Corporation Commission

DOCKETED

July 7, 2017

JUL 7 2017

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, AZ 85007

DOCKETED BY

Re: Notice of Filing Revised Tariff – Tucson Electric Power Company's Application for Approval of its 2016 Renewable Energy Standard Implementation Plan and Tucson Electric Power Company's Application for Approval for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return Decision No. 75975 (February 24, 2017), Docket Nos. E-01933A-15-0239 and E-01933A-15-0322

In compliance with Decision No. 75975 (February 24, 2017), on March 15, 2017, Tucson Electric Power Company ("TEP") submitted its Large General Service Time-of-Use Storage Program tariff ("LGS-TOU-S"). Enclosed, please find a revised LGS-TOU-S tariff to replace the version filed on March 15, 2017. There are currently no customers subscribed to this tariff.

If you have any questions, please contact me at (520) 884-3680.

Sincerely,

Melissa Morales  
Regulatory Services

Enclosure  
cc: Guadalupe Ortiz, Compliance Section

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AZ CORP COMMISSION  
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2017 JUL -7 P 4:25



Tucson Electric Power

Tucson Electric Power Company

Substitute Original Sheet No. 223

Superseding:

## Large General Service Time-of-Use Storage Program

### AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises. This program will be capped at a peak demand total of 25,000 kW for installed systems and active interconnection applications on a first come first serve basis. If 70% of the program capacity has been reached with the customers taking service under this program, prior to the Company's next general rate case filing, the Company will determine if the cost of the program is less than the system benefit it provides. If the cost is less than the benefit, the Company shall provide notice and promptly convene a meeting of the interested parties to Docket No. E-01933A-15-0239 ("Docket") to discuss a new customer participation level for the program. If each of the parties to that discussion agree on a new customer participation level for the program, then that level shall apply until the Commission determines the disposition of the program during the Company's next general rate case. The Company shall file a notice in the Docket to that effect and the program shall continue to be offered up to the new agreed upon customer participation level. However, if all parties cannot agree to a new customer participation level, then the Company shall file a request with the Commission to determine whether to continue, expand, or terminate the program in the Docket within 90 days of the finalization of the customer participation level change discussions. The Commission will then promptly review the program and determine if it should continue, terminate, or be adjusted. Notwithstanding, if the Company determines the cost is greater than the system benefit, then the Company shall file a request with the Commission to freeze the program until changes can be made in the Company's next general rate case.

### APPLICABILITY

To applicable general services when all energy is supplied at one point of delivery and through one metered service.

Service under this rate will commence when the appropriate meter has been installed.

In the event measured kW meets or exceeds 5,000 kW twice in a rolling twelve (12) month period, the customer may be moved to the Large Power Service Time-of-Use rate as a partial requirements customer.

Customers may switch between applicable rate tariffs once in a rolling twelve month period, unless the Customer is disqualified by one of the other Applicability conditions.

To qualify for this tariff, a customer must install an energy storage system (chemical, mechanical, or thermal) that will allow the customer to offset a minimum of 20% of their measured peak demand. The determination of 20% of the measured peak demand will be based on the customers previous year's measured peak demand prior to the installation of storage facilities. If this is a new facility, then the 20% reduction amount will be determined by the Company based on the total estimated peak demand designed for the facility.

Where a power producing facility is installed, inverters must be capable of and configured to provide VAR support so that a near unity power factor (at least 95%) is maintained during operation.

Not applicable to resale, breakdown, temporary, standby or auxiliary service.

### CHARACTER OF SERVICE

The service shall be three-phase, 60 Hertz, primary service at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

Where the storage facility will be producing electrical energy at the customer's facility, an additional, bi-directional meter will be installed at the inverter's output of the facility's power production unit.

### RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

Filed By: Kentton C. Grant  
Title: Vice President of Rates & Planning  
District: Entire Electric Service Area

Rate: TGLGSTB  
Effective: February 27, 2017  
Decision No.: 75975



# Tucson Electric Power

## Tucson Electric Power Company

Substitute Original Sheet No. 223

Superseding: \_\_\_\_\_

### BUNDLED STANDARD OFFER SERVICE - SUMMARY OF BASIC SERVICE, DEMAND AND ENERGY CHARGES

Basic Service Charge (non-power producing)	\$ 950.00 per month
Basic Service Charge (power producing)	\$1,183.18 per month

#### Demand Charges:

Summer On-Peak or Remaining Hours	\$25.00 per kW
Summer Off-Peak Excess Demand	\$21.84 per kW
Shoulder On-Peak or Remaining Hours	\$21.50 per kW
Shoulder Off-Peak Excess Demand	\$20.00 per kW
Winter On-Peak or Remaining Hours	\$20.50 per kW
Winter Off-Peak Excess Demand	\$18.20 per kW

#### Energy Charges (\$/kWh):

	Summer (May – September)	Winter (December-February)	Shoulder (October-November, March-April)
On-Peak	\$0.006000	\$0.005000	\$0.004000
Remaining	\$0.000000	\$0.000000	\$0.000000
Off-Peak	\$0.000000	\$0.000000	\$0.000000

#### Power Supply Charges (\$/kWh)

	Summer (May – September)	Winter (December – February)	Shoulder (October-November, March-April)
On-Peak	\$0.036000	\$0.032000	\$0.034000
Remaining	\$0.025609	\$0.025651	\$0.025630
Off-Peak	\$0.020000	\$0.020000	\$0.020000

Purchased Power and Fuel Adjustment Clause (PPFAC): The Base Power Supply Charge shall be subject to a per kWh adjustment in accordance with Rider-1 to reflect any increase or decrease in the cost to the Company for energy either generated or purchased above or below the base cost of purchased power and fuel.

Energy exported through the utility meter will be credited at the current MCCCC Rider-3 rate.

### TIME-OF-USE TIME PERIODS

Once per year on March 1<sup>st</sup> the time-of-use periods may change to reflect changing On-Peak and Off-Peak periods for the coming seasons which will take effect on May 1<sup>st</sup>. The On-Peak period will be determined as the 6 greatest average system demand hours during the previous three years by season. The Off-Peak period will be determined as the 12 lowest average system demand hours during the previous three years by season. When the hours are changed, a customer may choose to switch or keep their current time-of-use periods. The periods that are neither On-Peak nor Off-Peak will be Remaining Hours.

	On-Peak Hours	Off-Peak Hours	Remaining Hours
Summer (May – September)	1300-1900	2200-1000	1000-1300, 1900-2200
Winter (December – February)	0700-0800, 1700-2200	2300-0600, 1100-1600	0600-0700, 0800-1100, 1600-1700, 2200-2300
Shoulder (October – November, March – April)	1500-2100	2200-1000	1000-1500, 2200-2300

Filed By: Kentton C. Grant  
Title: Vice President of Rates & Planning  
District: Entire Electric Service Area

Rate: TGLGSTB  
Effective: February 27, 2017  
Decision No.: 75975

**BILLING DEMAND**

The monthly billing demand shall be the greatest of the following:

1. The greatest measured 15-minute interval demand read of the meter during the On-Peak or Remaining Hours of the billing period;
2. The contract capacity or 200 kW, whichever is greater

Additionally, the maximum 15 minute measured demand during the Off-Peak period of the billing period that is in excess (i.e. positive incremental amount above) of 150% of that billing period's measured On-Peak and Remaining Hours demand.

The Company reserves the right to require a Customer to install equipment to maintain an acceptable power factor at the Customer's expense.

The Company may require a written contract with a minimum contract demand and a minimum term of contract.

**PRIMARY SERVICE**

The above rate is subject to Primary Service and Metering. The Customer will provide the entire distribution system (including transformers) from the point of delivery to the load. The energy and demand shall be metered on primary side of transformers.

**DIRECT ACCESS**

A Customer's Direct Access bill will include all unbundled components except those services provided by a qualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this tariff will be applied to the customer's bill.

**FOR DIRECT ACCESS: ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR (AZISA) CHARGE**

A charge per kWh shall, subject to FERC authorization, be applied for costs associated with the implementation of the AZISA in Arizona.

**TEP STATEMENT OF CHARGES**

For all additional charges and assessments approved by the Arizona Corporation Commission see the TEP Statement of Charges which is available on TEP's website at [www.tep.com](http://www.tep.com).

**TAX CLAUSE**

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

**RULES AND REGULATIONS**

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

**ADDITIONAL NOTES**

Filed By: Kentton C. Grant  
Title: Vice President of Rates & Planning  
District: Entire Electric Service Area

Rate: TGLGSTB  
Effective: February 27, 2017  
Decision No.: 75975



## Tucson Electric Power

## Tucson Electric Power Company

Substitute Original Sheet No. 223

Superseding: \_\_\_\_\_

Additional charges may be directly assigned to a customer based on the type of facilities (e.g., metering) dedicated to the customer or pursuant to the customer's contract, if applicable. Additional or alternate Direct Access charges may be assessed pursuant to any Direct Access fee schedule authorized.

### BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:

#### Basic Service Charges:

##### Standard

Meter Services	\$ 56.04 per month
Meter Reading	\$ 2.26 per month
Billing & Collection	\$ 174.88 per month
Customer Delivery	<u>\$ 716.82 per month</u>
	\$ 950.00 per month

##### Power Producing

Meter Services	\$ 112.08 per month
Meter Reading	\$ 4.52 per month
Billing & Collection	\$ 349.76 per month
Customer Delivery	<u>\$ 716.82 per month</u>
	\$1,183.18 per month

#### Demand Charges (\$/kW)

##### Delivery Charges

Summer On-peak or Remaining	\$ 11.12 per kW
Summer Off-peak	\$ 10.96 per kW
Shoulder On-peak or Remaining	\$ 9.62 per kW
Shoulder Off-peak	\$ 9.12 per kW
Winter On-peak	\$ 7.62 per kW
Winter Off-peak	\$ 7.32 per kW

##### Generation Capacity Charges (in \$/kW):

Summer On-peak or Remaining	\$ 8.00 per kW
Summer Off-peak	\$ 5.00 per kW
Shoulder On-peak or Remaining	\$ 6.00 per kW
Shoulder Off-peak	\$ 5.00 per kW
Winter On-peak	\$ 7.00 per kW
Winter Off-peak	\$ 3.00 per kW

##### Fixed Must-Run Charges (in \$/kW)

\$ 1.52 per kW

##### Transmission (in \$/kW)

\$ 3.39 per kW

##### Transmission - Ancillary Services System Control & Dispatch (in \$/kW)

System Control & Dispatch	\$ 0.05 per kW
Reactive Supply and Voltage Control	\$ 0.18 per kW
Regulation and Frequency Response	\$ 0.18 per kW
Spinning Reserve Service	\$ 0.48 per kW
Supplemental Reserve Service	\$ 0.08 per kW
Energy Imbalance Service: Currently charged pursuant to the Company's OATT	

#### Energy Charges (\$/kWh):

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District: Entire Electric Service Area

Rate: TGLGSTB  
Effective: February 27, 2017  
Decision No.: 75975



## Tucson Electric Power

## Tucson Electric Power Company

Substitute Original Sheet No. 223

Superseding: \_\_\_\_\_

Delivery Charges	
On-peak Summer	\$0.006 per kWh
On-peak Shoulder	\$0.004 per kWh
On-peak Winter	\$0.005 per kWh
Base Power Supply Charge	
Summer On-peak	\$0.036000 per kWh
Summer Remaining	\$0.025609 per kWh
Summer Off-peak	\$0.020000 per kWh
Shoulder On-peak	\$0.034000 per kWh
Shoulder Remaining	\$0.025630 per kWh
Shoulder Off-peak	\$0.020000 per kWh
Winter On-peak	\$0.032000 per kWh
Winter Remaining	\$0.025651 per kWh
Winter Off-peak	\$0.020000 per kWh

### INFORMATIONAL FILING

Until such time that a final order is issued in TEP's next rate case, on July 1 of each year TEP will submit an informational filing in the Docket. The report will include: (i) the number of customers, both in the current year and cumulatively, that are participating in the program (including the proportion of these customers relative to the entire Large General Service Class); (ii) the total peak demand of such customers relative to the program cap of 25,000 kW; (iii) observed peak demand reductions, if any, of customers participating in this program; (iv) recommended changes, if any, to the Time-of-Use periods for this program; (v) if available, information regarding the average time to process applications from customers wishing to participate in this program; and (vi) the current year and cumulative kWh exported to the grid by these customers.

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Title: Vice President of Rates & Planning  
District: Entire Electric Service Area

Rate: TGLGSTB  
Effective: February 27, 2017  
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